

ORIGINAL

DIVISION OF CONSUMER ADVOCACY
Department of Commerce and
Consumer Affairs
335 Merchant Street, Room 326
Honolulu, Hawaii 96813
Telephone: (808) 586-2800

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

FILED
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PUBLIC UTILITIES
COMMISSION

In the Matter of the Application of)
)
HAWAIIAN ELECTRIC COMPANY, INC.)
HAWAII ELECTRIC LIGHT COMPANY, INC.)
MAUI ELECTRIC COMPANY, LIMITED)
)
For Approval of the Advanced Metering)
Infrastructure (AMI) Project and Request to)
Commit Capital Funds, to Defer and)
Amortize Software Development Costs, to)
Begin Installation of Meters and Implement)
Time-of-Use Rates, for Approval of)
Accounting and Ratemaking Treatment, and)
Other Matters.)

DOCKET NO. 2008-0303

DIVISION OF CONSUMER ADVOCACY'S
SUBMISSION OF INFORMATION REQUESTS TO HECO COMPANIES

Pursuant to the agreed upon Schedule of Proceedings set forth in the Order Approving Stipulated Procedural Order, as Modified, filed on April 21, 2009, the Division of Consumer Advocacy submits its **SUBMISSION OF INFORMATION REQUESTS HECO COMPANIES** in the above docketed matter.

DATED: Honolulu, Hawaii, May 8, 2009.

Respectfully submitted,

By Cat P. Awakuni
CATHERINE P. AWAKUNI
Executive Director
DIVISION OF CONSUMER ADVOCACY

DOCKET NO. 2008-0303

**HAWAIIAN ELECTRIC COMPANY, INC.,
HAWAII ELECTRIC LIGHT COMPANY, INC., AND
MAUI ELECTRIC COMPANY, LTD.**

SUBMISSION OF INFORMATION REQUESTS TO HECO COMPANIES

INSTRUCTIONS

In order to expedite and facilitate the Consumer Advocate's review and analysis in the above matter, the following is requested:

1. For each response, the Company should identify the person who is responsible for preparing the response as well as the witness who will be responsible for sponsoring the response should there be an evidentiary hearing;
2. Unless otherwise specifically requested, for applicable schedules or workpapers, the Company should provide hard copies of each schedule or workpaper together with one copy of each such schedule or workpaper on electronic media in a mutually agreeable format (e.g., Excel and Quattro Pro, to name two examples); and
3. When an information request makes reference to specific documentation used by the Company to support its response, it is not intended that the response be limited to just the specific document referenced in the request. The response should include any non-privileged memoranda, internal or external studies, assumptions, Company instructions, or any other relevant authoritative source which the Company used.
4. Should the Company claim that any information is not discoverable for any reason:

- a. State all claimed privileges and objections to disclosure;
- b. State all facts and reasons supporting each claimed privilege and objection;
- c. State under what conditions the Company is willing to permit disclosure to the Consumer Advocate (e.g., protective agreement, review at business offices, etc.); and
- d. If the Company claims that a written document or electronic file is not discoverable, besides complying with subparagraphs 4(a-c), identify each document or electronic file, or portions thereof, that the Company claims are privileged or will not be disclosed, including the title or subject matter, the date, the author(s) and the addressee(s).

DOCKET NO. 2008-0303

**HAWAIIAN ELECTRIC COMPANY, INC.,
HAWAII ELECTRIC LIGHT COMPANY, INC., AND
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SUBMISSION OF INFORMATION REQUESTS TO HECO COMPANIES

CA-IR-1

Ref: Application.

On various pages of the application, the Companies indicate that the proposed project will replace approximately 95 – 96% of the commercial, industrial and residential electric meters.

- a. For each company, please identify the planned roll-out schedule by geographical area for each customer class. For purposes of this question, please ignore the service visits that will be required to install the “first requested” meters by early adopters.
- b. Please discuss why there will be four to five percent of customers that will not receive the proposed AMI meters.
- c. If not already discussed earlier, please provide the customer type and probable geographical location of the customers not expected to receive AMI meters.
- d. If not already discussed, please discuss whether the customers expected not to receive the AMI meters will be able to receive the same level of benefits as other customers with AMI meters.

1. If not, please discuss whether these customers should be required to contribute to the overall costs of the AMI project.
2. If it is the Companies' position that these customers without AMI meters should contribute to the overall costs of the AMI project even if they cannot receive the same level of benefits as all other customers with AMI meters, please discuss whether the Companies have considered recovering some, but not all, of the allocated costs of the AMI project from these customers.
 - (a) If the Companies are willing to recover some reduced amount of cost recovery from these customers not expected to receive the same level of benefits, please provide the assumptions and calculations that would be used to determine the amount recoverable from these customers.
 - (b) Please provide a copy of all workpapers, calculations and other supporting documentation used to develop the Companies' response.

Ref: Quantifiable Benefits - Application and Exhibits 15 and 19.

On page 7, the Company asserts that the incremental revenue requirements for the proposed project include the offset from "the benefits of automating meter reading and certain field service activities, revenue enhancements from improved meter accuracy, and reduced electricity theft." Exhibit 15 presents a list of AMI benefits, and Exhibit 19, Table 12 provides the quantifiable benefits.

- a. Please provide copies of the workpapers used to develop the estimated quantifiable benefits associated with the implementation of AMI.
- b. If not already included with the response to part a. above, please identify all assumptions used to develop the estimated quantifiable benefits and include a discussion of why the assumptions are reasonable. If applicable, please provide the historical and all other supporting information relied upon by the Companies to develop its assumptions.
- c. Please confirm that the items and the related estimates are the Companies' best attempt to quantify the total benefits/savings at this time. If this understanding is incorrect, please provide a schedule with the Companies' best attempt to quantify the total benefits/savings associated with the proposed project. Please include copies of all

workpapers used to develop the estimates and provide a discussion of why each assumption was used to develop the estimates and why it was reasonable to make that assumption.

CA-IR-3

Ref: Quantifiable Benefits - Application and Exhibits 15 and 19.

- a. Please provide the estimated pay back period associated with the proposed project broken down by each company (i.e., HECO, HELCO, MECO).
 1. Please include copies of the workpapers used to develop the estimates.
 2. Please break down the pay back period by each individual company. Please include copies of the workpapers used to develop the allocated factors and to develop the savings per company.
- b. If the Companies have not developed a pay back analysis, please explain why not.

CA-IR-4

Ref: Quantifiable Benefits - Application and Exhibits 15 and 19.

- a. Please confirm that the Companies have not estimated or calculated any other quantifiable savings other than that presented in Table 12 of Exhibit 19.

- b. It does not appear that the Companies have estimated any savings related to reduced emission fees related to the probable reduction of emissions if the Companies are able to rely on the AMI and various TOU and other options that will allow the Companies to use their systems more efficiently. Please discuss.
- c. Please discuss whether there should be any recognition of the possible additional generation capacity benefits where the use of AMI technology might allow the Companies to dispatch generation units in a more efficient manner than was assumed in the most recently completed rate proceeding for each company. Please provide copies of any analyses or studies that support the Companies' response and the quantification of any such benefits.
- d. Please discuss whether there should be any recognition of the possible reduction in customer accounts and/or services expenses that would be related to reduced customer calls for various reasons (e.g., less questions/complaints about estimated bills). Please provide copies of any analysis or studies that support the Companies' response and the quantification of any such benefits.
- e. Please discuss whether there might be any savings related to reduced injuries or other related accidents attributable to

meter readers and/or the vehicles used by the meter readers. Please provide copies of any analysis or studies that support the Companies' response and the quantification of any such benefits.

- f. Please discuss whether the implementation of AMI technology will improve the billing cycle efficiency such that the working cash lag might be reduced. Please provide copies of any analysis or studies that support the Companies' response and the quantification of any such benefits.
- g. Please discuss whether the implementation of the proposed AMI technology will result in the obsolescence of other meter reading technologies that the Companies currently have in place (e.g., reading meters using equipment in a van reading transmitted data, etc.). Please provide copies of any analysis or studies that support the Companies' response and the quantification of the net benefits associated with the implementation of AMI technology.

CA-IR-5

Ref: Quantifiable Benefits - Application and Exhibits 15 and 19.

- a. Please identify the historical O&M expenses, excluding meter reading expenses, related to existing non-AMI meters for each of the past five years for each company.

- b. Please discuss whether the Companies anticipate O&M expenses, excluding meter reading expenses, to be greater or less than for AMI meters in comparison to non-AMI meters. Please provide copies of the documentation and analyses relied upon by the Companies that support the response.

CA-IR-6

Ref: Quantifiable Benefits - Application and Exhibits 15 and 19.

- a. If not already included in a different response, given the relatively nominal savings expected for meter reading, please explain why the Companies are not reflecting the elimination of the meter reading positions, the overhead associated with these positions, including, but not limited to supervisory expenses, and all other associated costs.
- b. If not already included in a different response, please discuss whether the Companies have estimated the vehicle costs (e.g., depreciation, fuel, repairs, etc.) that will be avoided with the elimination of the need for manual meter reading. If so, please ensure that the Companies have provided documentation that illustrates the calculation of the savings associated with these expenses.

CA-IR-7

Ref: Application, page 8.

On page 8, the Companies indicate that "[t]he revenue requirement analysis should not be confused with a complete business case for installing the AMI platform, which would require quantification of the costs and benefits of the programs or activities . . ."

- a. Please provide a copy of the "complete business case" that the Companies completed to justify the proposed project.
- b. If the Companies did not conduct a complete business case, please discuss why not.
- c. If not already discussed, please confirm that the Board of Directors approved the instant project.
 1. If not, please explain why Board of Director approval was not necessary.
- d. If the Board of Directors approved the instant project, please provide a copy of the business case or applicable presentation that the Board of Directors relied upon to decide that the proposed project should be conducted.

CA-IR-8

Ref: Application - Project Timeline.

- a. Please provide a project timeline for the AMI project that identifies all major milestones and critical paths.
- b. If not already identified in the timeline provided related to the AMI, please explain and discuss the timing of the CIS project

and how the delay in the successful in-service date of the CIS will affect, if at all, AMI project.

CA-IR-9

Ref: Application – CIS.

- a. If not already discussed, please identify the most current estimate of when the CIS project will be successfully completed and placed into service.
- b. Based on Exhibit 9, page 2, there are certain features or functions that definitely rely on the CIS. Please confirm that without the CIS, these features or functions will not be available.
- c. Please quantify the impacts on the projected costs and savings that are applicable to the proposed AMI project that are affected by the delay in the CIS. Please provide the assumptions and calculations used by the Companies to determine the response.

CA-IR-10

Ref: Application - Project Timeline.

It appears that the AMI project timeline has the network installed on a linear schedule with the installation for each company occurring sequentially, rather than concurrently. Similarly, the meter installation is also scheduled sequentially.

- a. If not already discussed elsewhere, please explain how any “first-come, first-served” requests will be accommodated.
 - 1. Please provide a detailed discussion of the education and/or advertising that will be conducted by the Companies to inform customers that these meters are available and on a “first-come, first-served” basis. Please provide copies of any developed media that is expected to be used for these purposes.
 - (a) If not already discussed, please discuss the timing in relation to the project timeline of the Companies planned informational campaign to educate the customers about the meters and the availability of these meters.
 - (b) If not already addressed, please discuss whether any such informational campaign should follow the implementation of certain key components of the project. If so, please include in the Companies’ response an identification of those project components that are deemed critical to allowing the Companies and the customers to receive the highest level of benefits.

2. Assuming that these meters are installed as requested by the consumer, please confirm that, if the AMI network, other supporting infrastructure, and tariff plans are not in place, the customers and the Companies will not be able to receive the full benefits of the AMI meters since the meters will not be used to the full extent of its capabilities.
- b. Please explain why HECO will have its AMI network installation occur first (November 2010 through August 2013), MECO's installation next (November 2013 through September 2014), and HELCO's installation last (October 2014 through August 2015).

CA-IR-11

Ref: Application, page 16.

In footnote 16, page 16, the Companies indicate that the "islands of Molokai and Lanai will be examined after AMI system deployments are completed on Oahu, Maui, and Hawaii."

- a. Please provide a detailed discussion of what exactly will be examined in order to determine when, or if, the customers on the islands of Molokai and Lanai will be able to have the opportunity to experience the purported benefits associated with the AMI network, meters, etc.

- b. Please discuss whether the customers on Lanai and Molokai will have to contribute to the cost of the AMI project if they are not able to receive any of the purported benefits associated with the project.
- c. Please provide a copy of any analyses, business plan, or other report conducted by or on behalf of the Companies to determine that the installation of the AMI network, meters and other equipment may not be cost effective for the islands of Molokai and Lanai.
 - 1. If no such analysis or study has been conducted, please explain why the Companies decided that a further analysis should be conducted before rolling out AMI infrastructure to Molokai and Lanai.
 - 2. If not already discussed elsewhere, please confirm that no such analysis, study, or any other kind of report has been conducted to substantiate a claim that the proposed AMI project will be cost effective for any of the islands.

CA-IR-12

Ref: Application.

In various places in the application (see, e.g., page 17), the Companies indicate that the AMI system will possess the ability to acquire interval data at 15-minute or 1-hour periods.

- a. Please discuss whether there is any cost differential in any of the components to the AMI project in order to allow the acquisition of interval data at 15-minute, 1-hour or other interval periods.
- b. If so, please discuss whether the Companies have conducted any analyses to determine whether it might be more cost effective to have the system acquire data at a single interval period, say 1-hour. If so, please provide a copy of that analysis.
- c. Please discuss whether the Companies have conducted any type of analysis that evaluates whether differing levels of benefits are achievable at different data acquisition intervals. If so, please provide a copy of the analysis, study or report and copies of any supporting documentation that quantifies the differing levels of benefits that might be achievable through different data acquisition intervals.

CA-IR-13

Ref: Enhanced Outage and Restoration Reporting.

The Companies assert that the AMI system will provide “the ability to improve distribution system operations through enhanced outage and restoration reporting.” (application, page 17).

- a. As part of HECO’s justification for the outage management system (“OMS”), it indicated that the OMS would provide the

ability to report on information that would be useful in identifying, troubleshooting and facilitating the restoration of power. Please provide a detailed discussion of how the capabilities of the OMS and the capabilities of the AMI system differ in terms of "enhanced outage and restoration reporting."

- b. Please provide a detailed discussion of how the capabilities of the OMS and AMI projects will provide additional synergies that will exceed the already existing capabilities of the OMS.
 1. Please itemize each of the enhanced capabilities that the interfaced OMS/AMI systems will be able to provide and provide a detailed discussion of each capability.
 2. For each of the enhanced capabilities, please provide the estimated impact on the following:
 - (a) Troubleshooting and restoration abilities;
 - (b) Outage identification; and
 - (c) Reporting abilities.
 3. For each of the enhanced capabilities, please provide the estimated impact on operating and maintenance expenses.

- (a) Please provide copies of the workpapers used to determine the estimated increase in O&M costs to realize the possible synergies.
 - (b) Please provide copies of the workpapers used to determine the estimated decrease in O&M costs that will be realized as a result of the synergies.
- c. On page 25, the Companies assert that support for the OMS "will be addressed" in the future. Please explain why the system that the Companies picked does not have OMS support "out of the box" and that additional capital investment in the future is required to obtain the necessary support so that the OMS and AMI projects can properly interface.
- d. If not already addressed, please confirm that the proposed AMI system will be able to interface with existing OMS without significant and costly modifications to either system (i.e., OMS and AMI). Please provide vendor documentation from the applicable vendors that substantiate the Companies' response.

CA-IR-14

Ref: Application.

- a. Please identify expected features in the proposed AMI system that might or will duplicate functions already provided by existing systems or processes in the Companies' operations.
- b. For each identified duplicated feature or function, please provide a discussion of why some regulatory action should not be taken to remove the cost, at least in part, of one of the apparently redundant systems. For instance, if the AMI system will allow HECO to pinpoint outages and facilitate restoration, which were two of the features used to justify the need for the OMS, the Companies should identify the different capabilities of the OMS and the AMI and highlight why both systems are needed.
- c. For each identified feature, please provide the estimated cost for that feature in each of the applicable systems. Please provide copies of the workpapers used to determine the Companies' response.

CA-IR-15

Ref: AMI Project Cost Allocations.

- a. Based on the understanding that only HECO has installed an OMS, please discuss whether HECO's customers might receive a greater level of benefits from the AMI, as

compared to HELCO and MECO customers. Please provide copies of any analysis or study done to support the Companies' response.

- b. Based on the Companies' disclosures (e.g., application, response to CA-IR-105 in Docket No. 2008-0083), the Companies propose to allocate costs for the MDMS and RNI based on customer counts. Please discuss, if each company might receive a different level of functionality from the same equipment due to various reasons (e.g., demographic differences, geographical differences, system differences), the reasonableness of relying on customer counts for allocation purposes. Please provide a copy of any analysis, etc. conducted to justify the reliance on customer counts for allocation purposes.
- c. If not already addressed, Exhibit 9 includes a function of outbound email that would seem to be reserved for "key accounts." Please confirm that these key accounts basically represent commercial and/or industrial accounts.
 - 1. If yes, please explain why residential customers should be held responsible for a feature that would not directly benefit the residential customer class.

Ref: AMI Pilots and Evaluation of the Systems.

On page 18, the Companies indicate that it has conducted three AMI pilot projects.

- a. Please confirm that these three AMI pilot projects all evaluated Sensus AMI technology.
- b. Please discuss whether the Companies evaluated any other AMI technology as extensively (i.e., conducting three pilots for each). If so, identify each AMI technology that was tested.
- c. If the Companies did not conduct extensive testing of each of the other technologies, please discuss the possibility that the selected system may not be the most cost effective system that should be implemented. Please provide any documentation that supports the Companies' response.
- d. Please confirm that all of the sites that the Companies have conducted their tests are on Oahu (i.e., Waikiki, Salt Lake, Makakilo, Koko Head, Pu'u Papa'a, Palolo, Tantalus, and Pauoa).
 1. Please discuss whether the Companies have done any additional analysis to ensure that the proposed system will be as effective in less urban areas, such as that found on the Big Island and in some areas on Maui.

2. If additional analysis has not been done to verify the effectiveness of the proposed AMI technology on the other islands, please discuss what guarantees the Companies have obtained to mitigate the cost and performance impacts on affected customers.
- e. On page 18, the Companies indicate that AMI is still being evaluated, developed and demonstrated. On page 21, the Companies indicate that it “anticipates installing and field testing the Sensus iConAPX (advanced, three phase commercial and industrial) meter.” Please explain in greater detail whether the Companies have or have not conducted a full evaluation of the proposed AMI technology and have sufficient information to make an informed conclusion that the proposed technology will be the most cost effective solution for Oahu, Maui and the island of Hawaii. Please provide a copy of any reports or other analyses that supports the Companies response.
- f. Please discuss whether the proposed AMI components are capable of interacting with alternative components that might provide greater functionality for geographical or demographic differences that might be found on Lanai and Molokai.
- g. If the Companies have not fully completed testing and evaluating the proposed technologies and equipment types,

please discuss whether the Companies' procurement and implementation plan for AMI allows for flexibility to accommodate possible changes.

CA-IR-17

Ref: Sensus AMI Technologies.

The Companies indicate that a collaborative relationship with the Southern Company, Portland General Electric and Alliant Energy to share knowledge and experiences regarding Sensus AMI products.

- a. Please provide copies of any recent reports, studies or analyses that have evaluated the efficacy and cost-effectiveness of Sensus AMI products generated by or on behalf of the other energy services providers.
- b. Please discuss whether the collaborative relationship with the other energy services providers include any cost reducing arrangements for the participants as it relates to AMI technologies.

CA-IR-18

Ref: AMI Technologies.

The Companies indicate that other technologies were also investigated and that those technologies include: cellular, Wi-Fi, and broadband over powerline. Application, page 18.

- a. Please confirm that the Companies did not investigate and test other AMI technologies other than the three that were

listed. If this understanding is incorrect, please identify the other technologies that were investigated.

b. For each of the other technologies that were tested, please provide the following:

1. Dates that the pilot was initiated and terminated;
2. Geographical area that was tested;
3. Copies of any report or analysis that was conducted to evaluate the results of the pilot;
4. Total project costs incurred for each pilot; and
5. Reasons why the technology was not selected for this project.

Please include copies of any documents that support the response.

c. If some of the other technologies were tested more than a few years (e.g., three) ago, please discuss whether the Companies considered that the technologies might have advanced such that those previously tested technologies might have advanced and been a possible alternative to the proposed technology. In other words, please confirm that the Companies did not rely on stale and/or dated data and technologies to reach its investment decision. Please provide copies of any analyses conducted to support the Companies' response.

CA-IR-19

Ref: Application.

- a. Please provide a copy of any analyses or studies conducted by the Companies to determine that the proposed AMI project is the best alternative by which to accomplish each of the goals and objectives identified in the application.
- b. If not already identified elsewhere, please identify each of the alternatives considered before determining that an AMI project was the best alternative
- c. For each of the goals and objectives identified in the application as justification for the AMI project, please provide a discussion of why the AMI project represents the most cost effective and/or reasonable means by which to attain those goals and objectives.

CA-IR-20

Ref: Application, page 18.

In footnote 18 on page 18, the Companies indicate that they are working with Sensus and other suppliers to develop and test various types of equipment that might be associated with AMI systems.

- a. Please discuss whether the Companies are or will receive any type of revenues or discount on the equipment as a result of this work. If not, please explain why not.

- b. If the Companies are receiving any type of compensation, whether in the form of payments or reduced costs, please confirm that these benefits will be recognized when determining the costs to be recovered from ratepayers. Please provide a discussion of how the benefits will be recognized.

CA-IR-21

Ref: AMI Technologies and Obsolescence.

- a. Please discuss the guarantees, if any, that the Companies have received as it relates to technological obsolescence for any of the components of the proposed AMI project. Please provide copies of any supporting documentation.
- b. Please discuss the guarantees, if any, as it relates to the support that will be available for various components of the AMI project, even if or when new upgrades are made available. Please provide copies of any supporting documentation.

CA-IR-22

Ref: AMI Meter Installation.

- a. On page 5 of the application, the Companies indicate that they expect to install a total of 451,000 meters (Oahu - 293,000; Maui – 66,000; Hawaii – 92,000). Please

identify all of the customer classes that were considered in the projected number of meters to be installed.

- b. Please provide the total number of meters for each customer class for each of the islands served by the Companies as of April 2009. Please reconcile any differences in the meters provided in response to this information request with the information disclosed in the most recently filed monthly financial report with the PUC.

CA-IR-23

Ref: AMI Meter Installation.

- a. Based on certain responses to information requests in Docket No. 2008-0083 (e.g., CA-IR-216), HECO has already initiated the process of installing AMI meters. Please confirm that the information provided in response to CA-IR-216 is the most current and accurate count of AMI meters installed on Oahu through the end of 2008.
- b. In its response to CA-IR-216 in Docket No. 2008-0083, the Company indicates that a total of 776 AMI meters were installed in 2008 (as of October 6, 2008). The instant application indicates that 1,100 AMI meters were installed in October and November 2008 (application, page 19). Furthermore, the application indicates that approximately 7,700 AMI meters have been installed as of November 10,

2008. The difference between the 1,100 AMI meters identified in Docket No. 2008-0303 and 776 meters in Docket No. 2008-0083 do not make up the difference between the estimated 7,700 meters in Docket No. 2008-0303 and 7165 meters in Docket No. 2008-0083. Please explain.

- c. Please provide the most current and accurate count of AMI meters installed on each of the islands served by the Companies through the end of 2008. Please provide this information by year.
- d. Please provide the most current estimate of the projected number of AMI meters to be installed on each island in 2009 through 2015 by year.
- e. Please provide the most current estimate of the projected number of non-AMI meters to be installed on each island in 2009 through 2015 by year.
 - 1. Please discuss the reasons why the Companies continue to project the need to install non-AMI meters if the intended goal is to replace all existing non-AMI meters with AMI meters.
 - 2. Please provide a copy of any analysis or study that suggests that the cost effectiveness of installing

non-AMI meters in 2009 and beyond, if applicable, is a reasonable cost.

- f. Please provide the actual number of meters installed in 2009 by island and classify the installed meters by AMI or non-AMI.
- g. Of the AMI meters installed to date on each of the islands, please discuss how the decisions were made by the Companies to install AMI meters (e.g., customer request, pilot test, etc.) and classify the number of meters installed as a result of each reason.

CA-IR-24

Ref: Meter Installation.

- a. Based on the assumption that, other than customers who have had AMI meters installed for purposes of pilot testing, all other AMI meter installations have been made as a result of a customer request, please discuss whether, if a customer affirmatively opts-out of the utility time-of-use tariff, that customer's decision to opt out circumvents some, if not many, of the possible benefits thought to be achievable through the implementation of AMI meters.
- b. Please discuss whether the Company has established and conducted any type of survey that gathers customer responses regarding the reasons why AMI meter installation

was requested but TOU rates were not accepted. If so, please provide the results of the survey.

CA-IR-25

Ref: AMI Network.

HECO indicates that its AMI network design “fosters overlapping coverage in order to achieve signal redundancy” and that the design is based on achieving a coverage ratio of 1.5. (application, page 22).

- a. Please discuss whether HECO relied upon any studies or analyses to determine that a coverage ratio of about 1.5 is reasonable. Please provide a copy of any such study, report or analysis.
- b. If not already discussed in the response to part a. above or in a report or study, if provided, please discuss whether the ratio of 1.5 is reasonable for the various geographical conditions that exist on each of the islands served by the Companies. Please provide a copy of the analysis, study or reports relied upon to support the Companies’ response.
- c. Please discuss whether the Companies have any analyses, studies or reports that conduct a sensitivity analysis of the various possible coverage ratios and the impact on AMI network reliability and cost effectiveness. If so, please

provide a copy of any such report, especially if it is specific to the geographical areas served by the Companies.

- d. If no such analyses have been conducted, please discuss why it is reasonable to assume that a 1.5 coverage ratio is reasonable as opposed to some other value that might result in a lower cost but negligible decrease in reliability or increased reliability but at a negligible increase in cost.

CA-IR-26

Ref: AMI and Non-AMI Meters.

- a. The Companies indicate that the expected life of the AMI meters is 15 years in footnote 31 (application, page 21). Please provide the basis for this assertion, including, but not limited to, any copies of studies or analyses.
- b. Please provide the average useful life of the non-AMI meters currently in service.
- c. The Companies are requesting accelerated cost recovery of the AMI meters and the remaining net book value for replaced non-AMI meters. Please provide copies of any communications from rating agencies or other sources that specifically indicate that without accelerate cost recovery of these costs, investors will assume that there is less certainty regarding the recovery of their investments and that regulatory support for the initiative is uncertain.

- d. Please provide examples of the journal entries that would be required to reflect the appropriate accounting for the proposed accelerated depreciation of the AMI meters and recovery of the replaced non-AMI meters in conjunction for ratemaking purposes with the continued use of currently approved depreciation rates for book purposes.
- e. If not already reflected in the response to part d. above, please confirm that, if the Companies' proposal is approved, there will be a deferred balance that will be reflected as an offset to rate base since the Companies will recover the costs of the AMI on an accelerated basis, but its books will still reflect some balance related to those assets. Please provide illustrative examples of the Companies' financial and regulatory accounts that reflect the Companies' proposed accounting treatment.

CA-IR-27

Ref: AMI Network Lease.

The Companies are seeking Commission approval of lease expenses for the Sensus-owned, two-way radio frequency network.

- a. Please provide copies of all analyses or studies that evaluated the net revenue requirement differences between the various options that were available regarding the AMI

network. These options should include, but not be limited to, leasing, owning and outsourcing the AMI network functions.

- b. If the Companies did not conduct such an analysis, please explain why not.
- c. If the Companies did not select the lowest cost alternative for the AMI network, please explain why not and provide any documentation that supports the Companies' response.
- d. If not already explained elsewhere, compare and discuss the qualitative benefits and costs of leasing, owning and outsourcing the AMI network.

CA-IR-28

Ref: AMI Project Functions.

- a. Please provide a comprehensive list of all functions that are expected to be available upon the successful and complete implementation of the proposed AMI project. Please include citations to any vendor or other documentation that supports the list of features.
- b. For each of the identified features, please list the various factors or systems that will affect the availability of the feature or function. For instance, there may be a feature that only requires the AMI meter as compared to a feature that requires the AMI meter, MDMS, CIS and OMS.

- c. For each of the identified features, please list each customer class that can directly benefit from that feature.

CA-IR-29

Ref: Exhibit 9.

On Exhibit 9, there appears to be certain items that include captions indicating that a certain phase has been removed. For example, there is a rectangle that has the caption "C&I presentment (MV-Web) Removed Phase 3." Please explain what the removal of these items mean.

CA-IR-30

Ref: Application.

In the HCEI Agreement, the Companies are supposed to "minimize the financial impacts on low income and disadvantaged customers who have limited options through a combination of tiered rates and lifeline rates."

- a. Please indicate the appropriate citations to the application and supporting exhibits where HECO has outlined its plan to minimize the financial impacts on low income and disadvantaged customers.
- b. If not already discussed, please identify the criteria that HECO will use to determine which customers will be able to qualify as low income or disadvantaged in order to have the impact of the AMI project minimized on electricity bills.

CA-IR-31

Ref: Vendors.

Whether for services, hardware, software, or any combination, please provide the following for each of the vendors that HECO intends to rely upon for this project:

- a. Years of operation;
- b. audited financial statements; and
- c. Copies of the most recent SEC form 8-Ks.

CA-IR-32

Ref: Vendors.

For each of the vendors that have been identified, please provide the following:

- a. A list of the three most recent projects that have been completed;
- b. The budgeted or bid cost for each project;
- c. The actual cost for each project;
- d. The original scope of each project and changes, if any, to the scope of the project; and
- e. Copies of any customer comments on the vendor.

CA-IR-33

Ref: Vendors – Enspira.

- a. Please discuss the process through which Enspira was selected by the Companies.

- b. If the process used to select Enspiria was not through a bid process, please explain and justify the reasons for not relying on a bid process.
- c. Assuming that the Companies relied upon a bid process to select Enspiria, please identify each of the respondents to the original bid and their bid amount. In addition, please discuss how Enspiria was selected, especially if it did not reflect the lowest bid.

CA-IR-34

Ref: Vendors – Sensus.

- a. Please discuss the process through which Sensus was selected by the Companies.
- b. If the process used to select Sensus was not through a bid process, please explain and justify the reasons for not relying on a bid process.
- c. Assuming that the Companies relied upon a bid process to select Sensus, please identify each of the respondents to the original bid and their bid amount. In addition, please discuss how Sensus was selected, especially if it did not reflect the lowest bid

CA-IR-35

Ref: Application.

- a. Please provide any updates to the projected costs for the proposed project. If the Companies propose to update any costs, please provide support for each change and provide those updates in the same format as Exhibits 19 and 21.
- b. Please provide any updates to the projected savings and/or benefits that will be derived from the proposed project. If the Companies propose to update any projected benefits/savings, please provide support for each change and provide those updates in the same format as Exhibits 19 and 21.

CA-IR-36

Ref: Application.

The Company is requesting the approval of an AMI surcharge to the extent that costs related to the AMI project are not recovered through base rates or through another surcharge.

- a. Please provide a detailed description of the accounting procedures that will be used to track each of the proposed costs associated with the AMI project and the supporting documentation that will be maintained to confirm the relation of the cost to the AMI project and the proper classification of the cost as a capital item, expense, deferred, etc. The Companies' response should include, but not be limited to,

copies of the procedures that will be followed, identification of the accounts and codes that will be used to track the costs, and the journal entries that might be used to record any applicable transactions.

- b. Please provide a detailed description of the accounting procedures that will be used to track the revenues collected by the Companies through base rates and any surcharges and the steps that will be taken to ensure that the Company that does not recover more than the allowed reasonable costs associated with the AMI project. The Companies response should include, but not be limited to, copies of the procedures that will be followed, identification of the accounts and codes that will be used to track the revenues received, and the journal entries that might be used to record any applicable transactions.
- c. Please confirm that, to the extent that the Company will recover any AMI costs through a surcharge, it will be the net amount of costs offset by any savings that can be attributed to the AMI project.
 - 1. Please provide a detailed description of the procedures that will be used to track the savings that can be attributed to the AMI project.

2. Please provide a detailed description of how the Companies will apply the savings generated by the AMI project to costs that might be recovered through any mechanism other than base rates. The Companies response should include, but not be limited to, copies of the procedures that will be followed, identification of the accounts and codes that will be used to track the revenues received, and the journal entries that might be used to support the amounts to be recovered and/or returned (if savings exceed costs for any given period) through a surcharge.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S SUBMISSION OF INFORMATION REQUESTS TO HECO COMPANIES** was duly served upon the following parties, by personal service, hand delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR § 6-61-21(d).

DEAN K. MATSUURA
MANAGER, REGULATORY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

1 copy
by hand delivery

THOMAS W. WILLIAMS, JR., ESQ.
DAMON SCHMIDT, ESQ.
PETER Y. KIKUTA, ESQ.
GOODSILL ANDERSON QUINN & STIFEL
1800 Alii Place
1099 Alakea Street
Honolulu, Hawaii 96813

1 copy
by hand delivery

Counsel for HECO Companies

HENRY Q CURTIS
KAT BRADY
LIFE OF THE LAND
76 North King Street, Suite 203
Honolulu, Hawaii 96817

1 copy
by U.S. Mail

WARREN S. BOLLMEIER II
PRESIDENT
HAWAII RENEWABLE ENERGY ALLIANCE
46-040 Konane Place 3816
Kaneohe, Hawaii 96744

1 copy
by U.S. Mail

MARK DUDA
PRESIDENT
HAWAII SOLAR ENERGY ASSOCIATION
P.O. Box 37070
Honolulu, Hawaii 96837

1 copy
by U.S. Mail

DATED: Honolulu, Hawaii, May 8, 2009.


